

## SENIOR ENGINEERING SPECIALIST

### NATURE OF WORK

This is advanced and highly technical work in connection with any branch of engineering in the field and/or office.

Work responsibilities may include one or more of the following: overseeing the work of subordinate personnel involved in manual or computer aided drafting; supervision of a survey field party; construction observation of complex projects; construction materials testing and inspection; implementing the provisions of the Lincoln Municipal Code and design standards; overseeing the work of subordinate personnel involved in the maintenance and installation of traffic control signs or devices; collection, computation and analysis of large volumes of data; Level III advanced hardware and software support and troubleshooting, computer training and advanced programming. Supervision may be exercised over subordinates engaged in any of the above areas of responsibility. Limited supervision is received from a technical or administrative superior in the form of general guidance and review of records, reports and final outcome.

### EXAMPLES OF WORK PERFORMED

Oversees the maintenance of electronic engineering records of Landbase, Paving, Water, Wastewater, Storm Sewer, Contour and other miscellaneous records of Public Works and Utilities divisions.

Provides graphic support for other departments, agencies and the general public; produces specialized maps.

Provides troubleshooting/review of construction projects to include review of all construction plans for accuracy; insures all plans are produced in a manner that will allow them to be properly archived; reviews all As-Built documents and updates appropriate information.

Provides Level III technical assistance and trouble shoots problems for internal and external customers in order to maintain the integrity of CEIS files data bases and command procedures; assists in the preparation of cost and time projections.

Writes simple programs, batch files, scripts and routines; develops and maintains comprehensive documentation.

Reviews engineering studies, plans and specifications from outside consultants to ensure quality control standards are followed.

Assists in the update of the Comprehensive Plan.

Develops and implements public information and education programs which may include public presentations.

Prepares ordinances and resolutions for creating, repealing or amending special assessment districts; prepares information and maintains formal records for special assessment districts.

- Assists in the preparation and monitoring of various budgets.
- Prepares and reviews traffic impact studies and provides written recommendations; prepares and reviews draft environmental reports per Federal requirements; implements management/safety improvement programs.
- Prepares recommendations concerning right-of-way vacations and use of public right-of-way.
- Reviews building plans, curb cuts, subdivision and zoning applications for conformance with design standards.
- Prepares executive orders authorizing construction of public infrastructure by private developers.
- Investigates drainage complaints and recommends solutions.
- Develops long or short range transportation improvement programs.
- Prepares a variety of technical memos and reports.
- Utilizes various engineering/planning software and current applications.
- Implements management/safety improvement programs.
- Assists in the administration of the City's sidewalk program, sight distance standards and temporary traffic control requirements.
- Reviews bid submittals for completeness and variance with cost estimate data base.
- Sets project budget and controls labor and/or construction costs.
- Coordinates all phases of work in the field; schedules survey responsibilities for multiple projects.
- Serves as chief lab technician; schedules work; creates and maintains data base for summary reports, test data analysis, mix design, soils classification; supervises the calibration and maintenance or repair of laboratory equipment; reviews and suggests modifications to specifications.
- Oversees the work of subordinate personnel involved in maintenance and installation of traffic signals, signs, markings and parking meters.
- Performs work in all of the following areas: prepares traffic signal timing, optimization, designs, signing and marking plans; monitors and controls operation of signal system via computer control; maintains necessary data bases for computer operation; assumes responsibility for the general operation and maintenance of the computer; reviews, analyzes and responds to traffic requests to determine the need for changing traffic control devices.

Performs related work as required.

#### DESIRABLE KNOWLEDGES, ABILITIES AND SKILLS

Considerable knowledge of programming in Visual Basic, Java, HTML, MDL and Avenue.

Knowledge of City, County, State or Federal transportation planning processes.

Knowledge of regional transportation modeling, e.g., Tranplan, TP+ and Viper.

Knowledge of engineering/planning software and applications.

Ability to understand and follow complex oral and written instructions.

Ability to provide advanced hardware/software support.

Ability to prepare a variety of technical memorandums and reports.

Ability to work independently on a variety of assigned projects with only periodic and general supervision and instructions.

Ability to communicate effectively both orally and in writing.

Ability to understand and follow complex oral and written instructions.

Ability to establish and maintain effective working relationships with other government agencies, citizen committees, the media, public officials, other City departments, co-workers and the general public.

Ability to meet and deal effectively with the general public

#### DESIRABLE TRAINING AND EXPERIENCE

Graduation from an accredited four year college or university with major course work in computer science, drafting or other related engineering field, the electrical or electronic field; or extensive qualified experience of a technical nature.

#### MINIMUM QUALIFICATIONS

Graduation from a senior high school or equivalent supplemented by an associate degree in computer science, drafting or other related engineering field, the electrical or electronic field; and considerable experience with software installation/upgrade troubleshooting, drafting, surveying and/or related civil engineering work; or any equivalent combination of training and experience which provides the desirable knowledges, abilities and skills.

NECESSARY SPECIAL REQUIREMENTS

Possession of a valid State of Nebraska driver's license when operating a vehicle may be necessary to the satisfactory performance of assigned duties for some positions within this classification.

*Employees may be required to possess any of the following if required by the position to which assigned.*

Novell CNA Certification.

Workzone Certification Supervisor.

Certification in ASCE/ITE/IMSA/FHWA.

Approved by: \_\_\_\_\_  
Department Head

\_\_\_\_\_  
Personnel Director

9/99

Revised: 02/2002

PS2003